

PRESENTS

**A COMPLETE
FAMILY OF
DIP SWITCHES**

SERIES 76 DUAL INLINE PACKAGE SWITCHES



- Top or side actuated
- Rockers or Toggles
- SPST, SPDT, DPDT Circuitry

There's a
Grayhill DIP Switch
to meet your needs
for front or back panel
or logic circuits

Grayhill offers a complete DIP Switch family with many extra features

The usual Grayhill attention to precision and quality in miniaturized switches is exemplified in the presentation of the Series 76 DIP Switch—a high density Dual In-Line Package switch for easy PC board mounting in data processing, communications, and other back panel and logic applications where manual programming will be called for. The spring loaded sliding ball contact system of the Grayhill Series 76 Rocker DIP Switch provides positive positioning and high resistance to shock and vibration not previously available in switches of this type. Molded-in terminals protect against contact contamination.

Initial design criteria included positive positioning, a degree of wiping action, and ability to withstand normal shock and vibration.

The resultant design accomplishes these goals and provides exceptionally long life. Grayhill Rocker DIP Switches have been tested to 50,000 mechanical operations and have commensurate electrical life, far in excess of what is required for the typical application. These and other performance standards are provided without price premium over other brands.

Note the features and specifications of the Series 76 DIP Switch and see where and how it has been value-engineered as the finest product of its kind on the market.

All These Dual In-Line Package Benefits

Easy mounting to PC board by direct flow-soldering or insertion into a standard socket

Molded-in terminals minimize contact system contamination

Compact, high density design; low profile; minimum above board height .270"

Cost savings industry accepted package dimensions; multi-function, programmable PC boards; elimination of mounting hardware or hard-wiring interconnections

Outstanding performance at no price premium 50 mA at 30 VDC/35,000 operations; 125 mA at 30 VDC/25,000 operations. Mechanical life: 50,000 operations

Spring loaded sliding ball contact system provides positive wiping contact, immunity to normal shock and vibration, and exceptionally long life...all essentials in back panel logic applications

Protective cover reduces contamination during the cleaning and soldering operation—and can remain on the switch in the equipment to deter unauthorized actuation

Options include protective covers, .125" terminal length, black (instead of red) switch covers, switches without stand-offs.

All Grayhill DIP Switches incorporate our exclusive spring-loaded, sliding ball contact system.

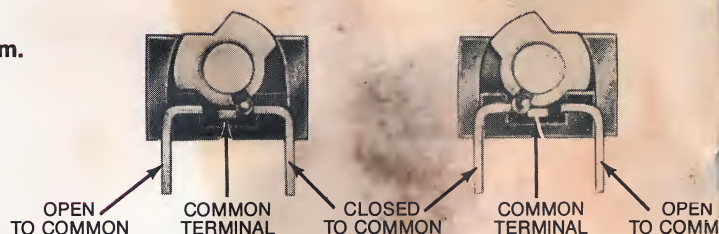
This highly reliable contact system provides positive wiping action, immunity to normal shock and vibration and exceptional 50,000 cycle life.

The pictures describe the contact system.

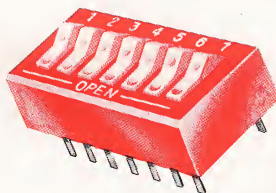
SPST Contact System



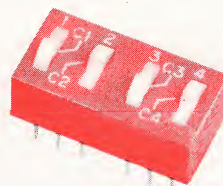
SPDT and DPDT contact system (DPDT operates two sections)



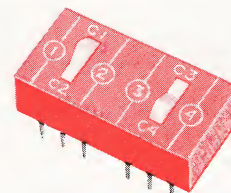
**Top access,
back panel
programming
switches
with your
choice of
circuitry**



SPST
The Rocker DIP...
standard or recessed rockers
2 through 10 stations



SPDT
The DIP-C™
2, 3 or 4 stations

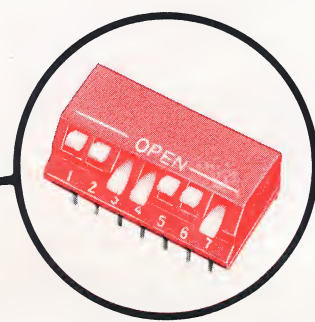
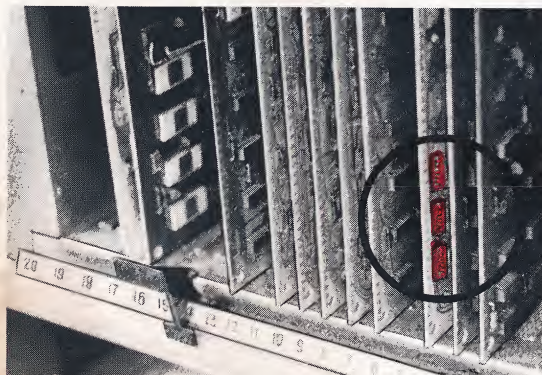


DPDT
The Double-DIP™
1 or 2 stations

Full range of switching functions—
Providing logic "1" and logic "0" inputs
when required
Protective covers available for all types

Measures only 0.325" height above
board in standard rocker versions; only
0.270" height above board in recessed
rocker versions

New!
Back panel
programming
Without
removing
PC boards
from their
racks

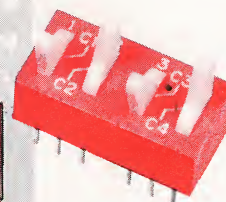
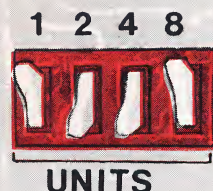
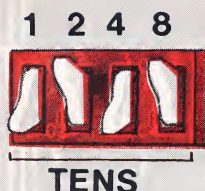


The PIANO-DIP™ SPST side-actuated DIP switch

Low profile—readily mounts on
racked PC Boards
Easy access when edge mounted

Immediate identification of actuator
position
Now offered with 7 rockers; future
versions will include 4 to 10 stations

Now!
a DIP Switch
for front panel
programming



THE TOGGLE-DIP™ Exceptional life rating makes this switch ideal for front panel usage

50,000 cycle life at logic loads
SPDT and DPDT circuitry
Easy access toggles on 0.200" or 0.400"
centers

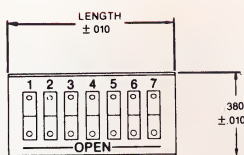
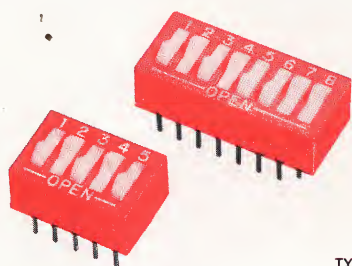
Affordable prices as low as \$0.70 per
switch station in 100 piece lots

SINGLE THROW DIP SWITCHES

- SPST, 2 thru 10 Stations
- Standard Or Recessed Rockers

THE ROCKER DIP

Single Pole/Single Throw
Circuitry



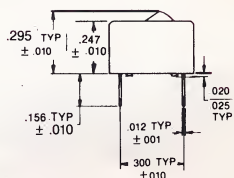
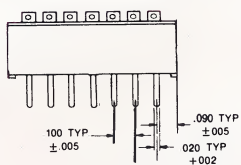
TYPICAL CIRCUIT DIAGRAM

(SHOWN IN OPEN POSITION FOR A SWITCH WITH SEVEN ROCKERS)

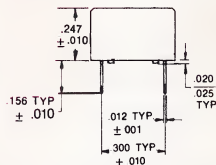
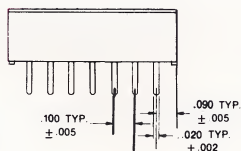


SEE ORDERING INFORMATION

Standard Rocker



Recessed Rocker



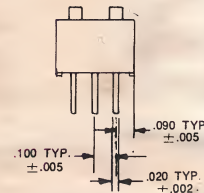
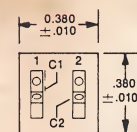
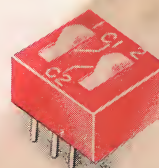
DOUBLE THROW

- Provide Logic "1" And
- Simpler, More Positive

THE D

Single Pole/Double
Circuitry

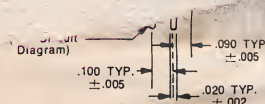
2 Rocker



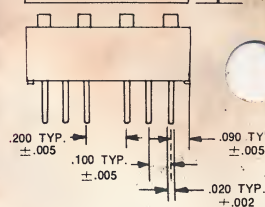
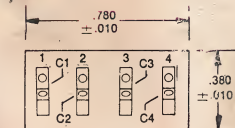
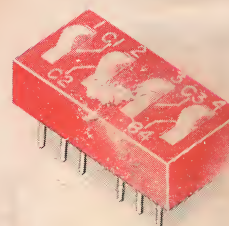
3 Rocker



.580
±.010



4 Rocker



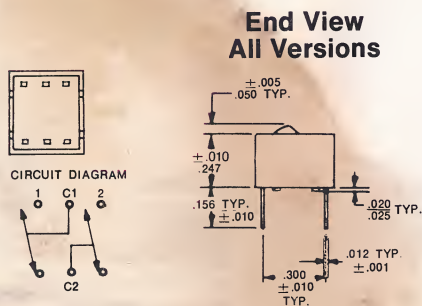
Rocker DIP Switches

V DIP SWITCHES

And Logic "0" Inputs
Positive Actuation Than Bridging Adjacent Rockers

DIP-C™

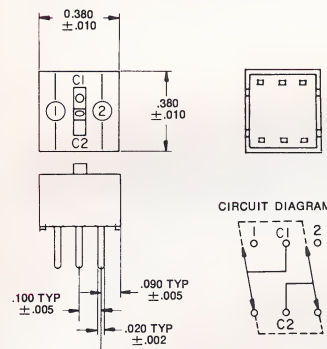
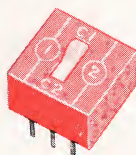
Double Throw
Circuitry



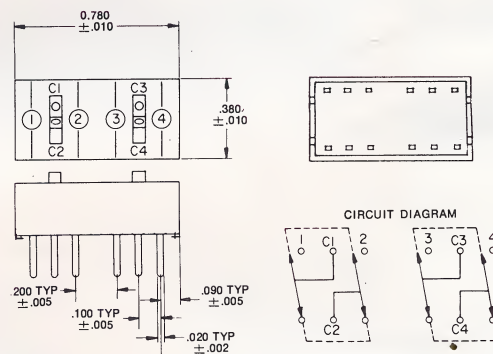
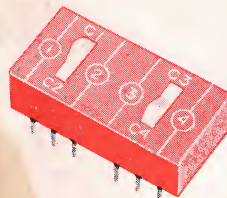
THE DOUBLE-DIP™

Double Pole/Double Throw Circuitry

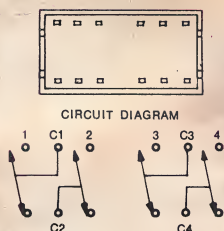
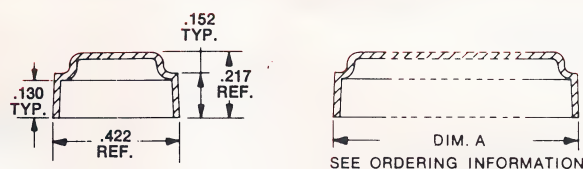
1 Rocker



2 Rocker

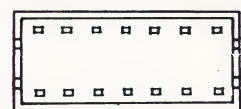
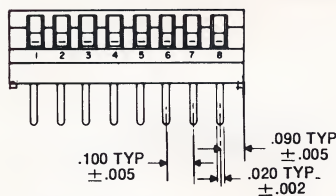
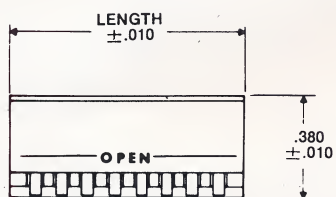
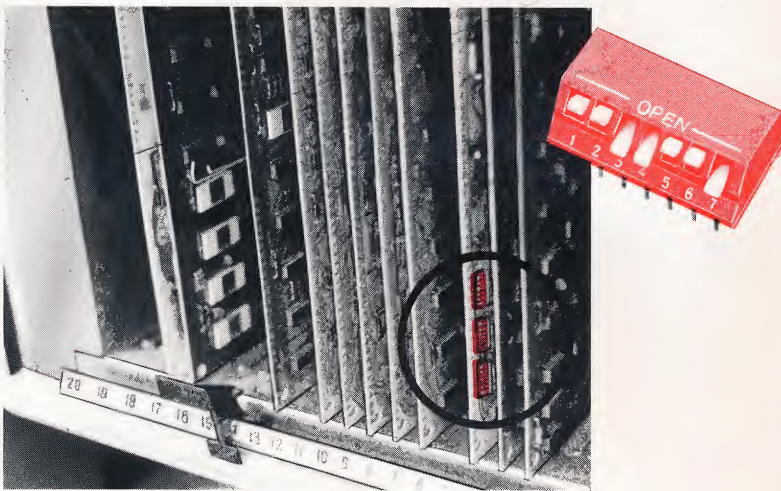


Protective Covers for the Top Access Switches



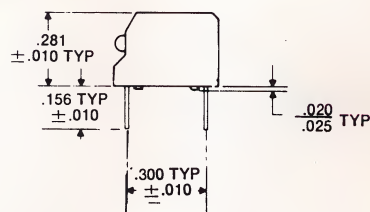
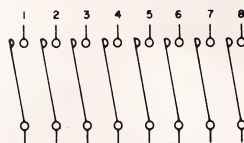
THE PIANO-DIP™

- SPST, Side Actuated
- Edge Mounting Provides Easy Access On Closely Racked PC Boards
- Positive Identification Of Actuator Position



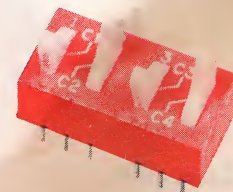
TYPICAL CIRCUIT DIAGRAM

(SHOWN IN OPEN POSITION FOR A SWITCH WITH EIGHT ROCKERS)

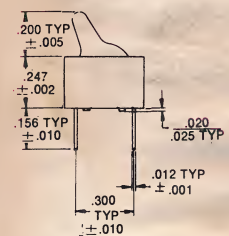


THE TOGGLE-

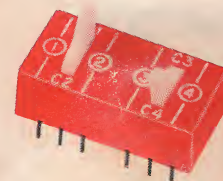
SPDT



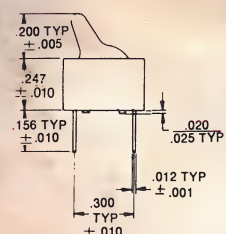
End View



DPDT



End View

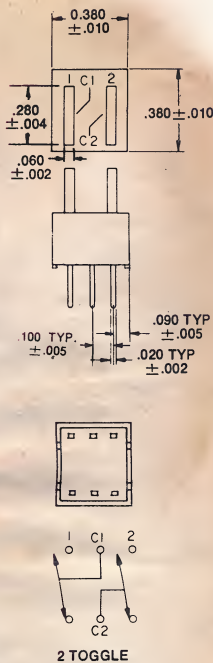


panel mount switches

DIP™

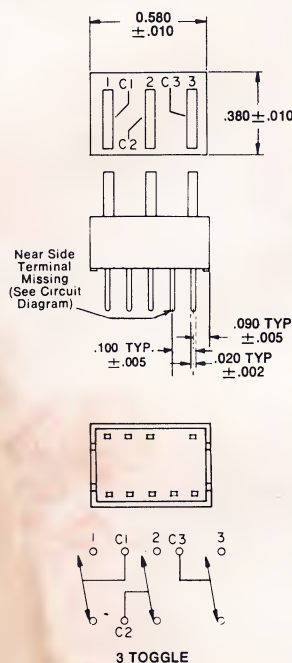
- SPDT, DPDT, Front Panel • 50,000 Cycle Life At Logic Loads
- Positive Feel Provided by Spring-Loaded, Sliding Ball Contact System
- Stackable, Side By Side, For Multi-Station Arrays

2 Toggle



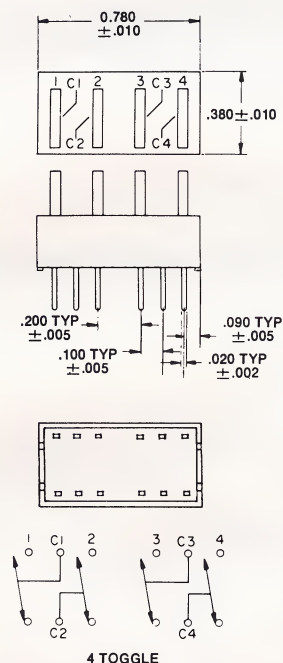
2 TOGGLE

3 Toggle



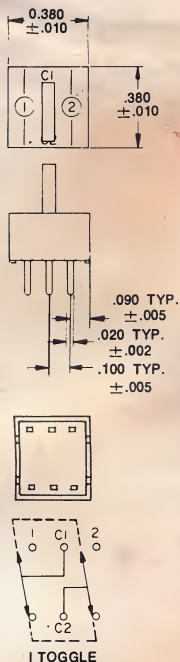
3 TOGGLE

4 Toggle



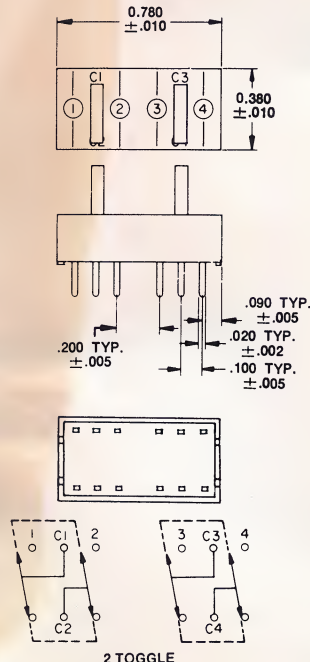
4 TOGGLE

1 Toggle

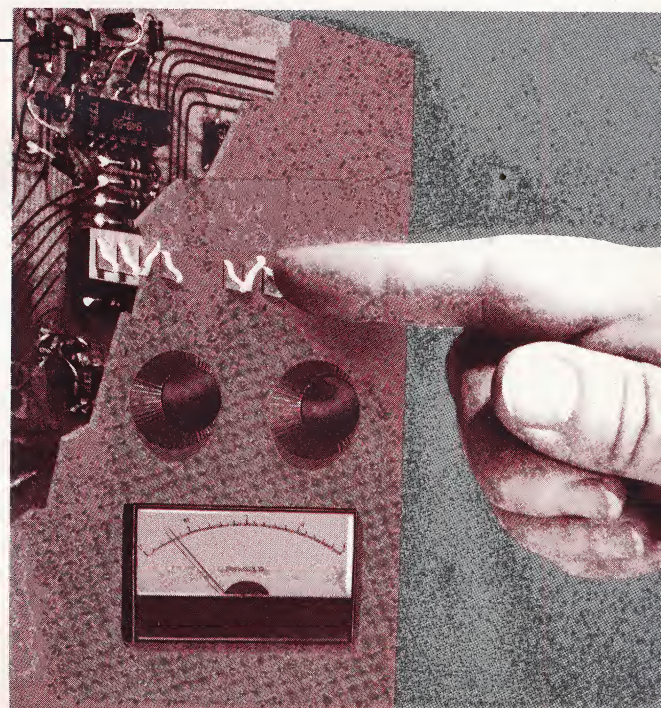


1 TOGGLE

2 Toggle



2 TOGGLE





DIP Switches Ordering Information

SPECIFICATIONS

Mechanical Life: 50,000 Operations per position

Make and Break Current Rating: 35,000 Operations at 50 MA, 30 VDC; 25,000 Operations at 125 MA, 30 VDC.

Contact Resistance: 100 Milliohms Maximum after life (30 Milliohms initially), measured at 2MA DC and 50 MV (open circuit).

Insulation Resistance (at 100 VDC): Between Adjacent Closed Contacts: 50,000 Megohms after life, (100,000 Megohms initially). Between Adjacent Open Contacts: 50,000 Megohms after life, (100,000 Megohms initially).

Dielectric Strength: Between Adjacent Closed Contacts: 500 VAC after life (750 VAC initially). Between Adjacent Open Contacts: 500 VAC after life (750 VAC initially).

Current Carry Rating: 5 Amps with a maximum contact temperature rise of 20° C.

MATERIALS AND FINISHES

Switch Cover, Rocker, Base and Baseplate: Polyester.

Shorting Bar: Brass, Gold plated .00001" minimum over Nickel plated .00005" minimum.

Base Contacts including Terminals: Brass, Gold plated .00001" minimum.

Protective Cover: Zytel.

CAUTION Some methods for preparation, soldering and cleaning of PC Boards are not well-suited to use with DIP switches and other electro-mechanical components. The GRAYHILL Application Engineering Department will be happy to advise on processes and procedures to help avoid contamination in your specific situation.

SPST ROCKER DIP SWITCHES 2 THRU 10 STATIONS

No. of Rockers	Length	Standard Part Number	Recessed Part Number	Unit Price	Uses Cover
2	0.280	76B02	76RB02	\$3.35	76P02
3	0.380	76B03	76RB03	3.45	76P03
4	0.480	76B04	76RB04	3.55	76P04
5	0.580	76B05	76RB05	3.65	76P05
6	0.680	76B06	76RB06	3.70	76P06
7	0.780	76B07	76RB07	3.80	76P07
8	0.880	76B08	76RB08	3.90	76P08
9	0.980	76B09	76RB09	4.00	76P09
10	1.080	76B10	76RB10	4.10	76P10

THE DIP-C™ SINGLE POLE/DOUBLE THROW CIRCUITRY

SPDT ROCKERS DIP SWITCHES			
No. of Rockers	Part Number	Unit Price	Uses Cover
2	76C02	\$3.40	76P03
3	76C03	3.65	76P05
4	76C04	3.90	76P07

THE DOUBLE-DIP™ DOUBLE POLE / DOUBLE POLE CIRCUITRY

DPDT ROCKER DIP SWITCHES			
No. of Rockers	Part Number	Unit Price	Uses Cover
1	76D01	\$3.50	76P03
2	76D02	4.00	76P07

THE PIANO-DIP™ SPST—SIDE ACTUATED

No. of Rockers	Length	Part Number	Unit Price	No. of Rockers	Length	Part Number	Unit Price
4	0.480	76PB04	*	8	0.880	76PB08	*
5	0.580	76PB05	*	9	0.980	76PB09	*
6	0.680	76PB06	*	10	1.080	76PB10	*
7	0.780	76PB07	\$4.30	*CHECK GRAYHILL FOR PRICE AND AVAILABILITY			

THE TOGGLE-DIP™ FRONT PANEL PROGRAMMING SWITCHES

SPDT TOGGLE-DIP SWITCHES			DPDT TOGGLE-DIP SWITCHES		
No. of Rockers	Part Number	Unit Price	No. of Rockers	Part Number	Unit Price
2	76TC02	\$3.40	1	76TD01	\$3.50
3	76TC03	3.65	2	76TD02	4.00
4	76TC04	3.90			

PROTECTIVE COVERS FOR THE TOP ACCESS SWITCHES

Dim. A	Part Number	Unit Price	Dim. A	Part Number	Unit Price
0.322	76P02	15¢	0.822	76P07	15¢
0.422	76P03	15¢	0.922	76P08	15¢
0.522	76P04	15¢	1.022	76P09	15¢
0.622	76P05	15¢	1.122	76P10	15¢
0.722	76P06	15¢			

DISCOUNT SCHEDULE

1- 9 UNIT PRICE
10-24 LESS 8%
25-49 LESS 16%
50-99 LESS 21%
100-499 LESS 30%
500-999 LESS 35% (PART NOS. 76C, 76D, 76TC, 76TD, 76P, and 76PB)
500-999 LESS 40% (PART NOS. 76B and 76RB)
1000 UP CONTACT GRAYHILL

PRICES AND DISCOUNTS SUBJECT TO CHANGE WITHOUT NOTICE.

Dimensions and specifications subject to change.



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